

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 Claim 1 (currently amended): For use in a router having a  
2 designated routing facility and a standby routing facility,  
3 a method for processing information related to routing, the  
4 method comprising:

5 a) executing, with the designated routing facility, a  
6 routing protocol to generate network topology  
7 information;

8 b) providing a copy of ~~network topology information~~  
9 ~~generated by, and/or~~ network state information  
10 received by the designated routing facility to the  
11 standby routing facility; and

12 c) executing, with the standby routing facility, a  
13 routing protocol based on the network information  
14 provided by the designated routing facility, but such  
15 that signaling from the standby routing facility to  
16 external nodes is suppressed.

1 Claim 2 (original): The method of claim 1 wherein the  
2 routing protocol is the IS-IS protocol.

1 Claim 3 (original): The method of claim 1 wherein the  
2 routing protocol is a link state routing protocol.

1 Claim 4 (currently amended): For use in a router having a  
2 designated routing facility and a standby routing facility,  
3 a method for processing information related to routing, the  
4 method comprising:

5        a) executing, with the designated routing facility, a  
6        routing protocol to generate network topology  
7        information;  
8        b) providing a copy of network topology information  
9        generated by, and/or network state information  
10       received by, the designated routing facility to the  
11       standby routing facility; and  
12       c) executing, with the standby routing facility, a  
13       routing protocol based on the network information  
14       provided by the designated routing facility, but such  
15       that signaling from the standby routing facility to  
16       external nodes is suppressed  
17       ~~The method of claim 1~~ wherein the act of providing a copy  
18       of network topology information is effected by having the  
19       designated routing facility flood such information onto a  
20       local area network within the router.

1       Claim 5 (original): The method of claim 1 further  
2       comprising:

3             d) if a failure of the designated routing facility is  
4             determined, then electing the standby routing facility  
5             as the designated routing facility.

1       Claim 6 (original): The method of claim 5 wherein the act  
2       of electing includes having the standby routing facility  
3       assume identification information of the failed designated  
4       routing facility.

1       Claim 7 (original): The method of claim 1 wherein the  
2       designated routing facility and the standby routing  
3       facility share a common forwarding facility.

1 Claim 8 (currently amended) A router comprising:  
2 a) a designated routing facility adapted for  
3 executing a routing protocol to generate network  
4 topology information; and  
5 b) a standby routing facility, the standby routing  
6 facility adapted for  
7 i) accepting a copy of ~~network topology~~  
8 ~~information generated by, and/or~~ network state  
9 information received by, the designated routing  
10 facility; and  
11 ii) executing a routing protocol based on the  
12 network information provided by the designated  
13 routing facility, but such that signaling from  
14 the standby routing facility to external nodes is  
15 suppressed.-

Claim 9 (canceled)

1 Claim 10 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 1.

1 Claim 11 (currently amended): For use in a router having,  
2 at a given time, a currently designated routing facility  
3 and a current standby routing facility, a method  
4 comprising:  
5 a) informing an external node that the router has  
6 redundant routing facilities;  
7 b) informing an external node of the identify of the  
8 currently designated routing facility;

- 9           c) providing, with the currently designated routing  
10           facility, network information to the external node;  
11           and  
12           d) providing, with the current standby routing  
13           facility, network information to the external node.

1   Claim 12 (currently amended): The method of claim 11  
2   wherein the currently designated routing facility and  
3   current standby routing facility share a common forwarding  
4   facility.

1   Claim 13 (currently amended): The method of claim 11  
2   wherein the act of informing an external node that the  
3   router has redundant routing facilities includes generating  
4   and transmitting a message including an identification of  
5   the router, address information of the currently designated  
6   routing facility, and address information of the current  
7   standby routing facility.

1   Claim 14 (original): The method of claim 11 wherein the  
2   act of informing an external node that the router has  
3   redundant routing facilities uses an existing BGP message  
4   format.

1   Claim 15 (currently amended): The method of claim 11  
2   further comprising:  
3           e) if a failure of the currently designated routing  
4           facility is determined, then  
5                i) electing the current standby routing facility  
6                as ~~the~~ a new designated routing facility, and

7           ii) informing the external node of the identify  
8           of the newly elected new designated routing  
9           facility.

1   Claim 16 (currently amended): A router comprising:

2           a) a currently designated routing facility;  
3           b) a current standby routing facility; and  
4           c) a signaling facility adapted for  
5                i) informing an external node that the router  
6                has redundant routing facilities, and  
7                ii) informing the external node of the identify  
8                of the currently designated routing facility,  
9           wherein the currently designated routing facility is  
10          adapted to provide network information to the external  
11          node, and  
12          wherein the current standby routing facility is  
13          adapted to provide network information to the external  
14          node.

1   Claim 17 (currently amended): The router of claim 16  
2          wherein the currently designated routing facility has a  
3          first internet address and the current standby routing  
4          facility has a second internet address.

1   Claim 18 (currently amended): A network having at least  
2          two routers, each of the at least two routers comprising:  
3           a) a currently designated routing facility;  
4           b) a current standby routing facility; and  
5           c) a signaling facility adapted for  
6                i) informing an external node that the router  
7                has redundant routing facilities, and

8           ii) informing the external node of the identify  
9           of the currently designated routing facility,  
10          wherein the currently designated routing facility is  
11 adapted to provide network information to the external  
12 node, and  
13          wherein the current standby routing facility is  
14 adapted to provide network information to the external  
15 node.

1 Claim 19 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 11.

1 Claim 20 (currently amended): For use in a router adapted  
2 to interact with an external router having, at a given  
3 time, a currently designated routing facility and a current  
4 standby routing facility, a method comprising:  
5       a) accepting, from the external router, the identify  
6       of the currently designated routing facility;  
7       b) accepting, from the currently designated routing  
8       facility of the external router, network information;  
9       c) using the network information accepted from the  
10      currently designated routing facility of the external  
11      router for determining routes; and  
12      d) accepting, from the current standby routing  
13      facility of the external router, network information,  
14      but not using it for determining routes.

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1 Claim 21 (currently amended): The method of claim 20  
2 further comprising:

3 e) storing the network information accepted from the  
4 current standby routing facility of the external  
5 router.

1 Claim 22 (currently amended): The method of claim 20  
2 further comprising:

3 e) accepting, from the external router, an indication  
4 that the currently designated routing facility has  
5 failed;

6 f) accepting, from the external router, an indication  
7 that the formerly current standby routing facility has  
8 been elected as ~~the~~ a new designated routing facility;  
9 and

10 g) using path information from the newly elected new  
11 designated routing facility.

1 Claim 23 (currently amended): The method of claim 21  
2 further comprising:

3 f) accepting, from the external router, an indication  
4 that the currently designated routing facility has  
5 failed;

6 g) accepting, from the external router, an indication  
7 that the formerly current standby routing facility has  
8 been elected as ~~the~~ a new designated routing facility;  
9 and

10 h) using the stored path information from the  
11 formerly current standby routing facility that is now  
12 the newly elected new designated routing facility.

1 Claim 24 (currently amended): A router adapted to interact  
2 with an external router having, at a given time a currently

3 designated routing facility and a current standby routing  
4 facility, the router comprising:

- 5 a) an input for
- 6 i) accepting, from the external router, the  
7 identify of the currently designated routing  
8 facility, and
- 9 ii) accepting, from the currently designated  
10 routing facility of the external router, network  
11 information; and
- 12 b) a routing facility for
- 13 i) using the network information accepted from  
14 the currently designated routing facility of the  
15 external router for determining routes, and
- 16 ii) accepting, from the current standby routing  
17 facility of the external router, network  
18 information, but not using it for determining  
19 routes.

1 Claim 25 (currently amended): The router of claim 24  
2 further comprising:

3 c) a storage device for storing the network  
4 information accepted from the current standby routing  
5 facility of the external router.

1 Claim 26 (currently amended): The router of claim 24  
2 wherein the input is further adapted for

3 iii) accepting, from the external router, an  
4 indication that the currently designated routing  
5 facility has failed, and

6 iv) accepting, from the external router, an  
7 indication that the formerly current standby



8 routing facility has been elected as ~~the~~ a new  
9 designated routing facility, and  
10 wherein the routing facility is further adapted to use  
11 path information from the newly elected new designated  
12 routing facility when the input accepts the indication that  
13 the formerly current standby routing facility has been  
14 elected as the new designated routing facility.

1 Claim 27 (currently amended): The method of claim 25  
2 wherein the input is further adapted for  
3 iii) accepting, from the external router, an  
4 indication that the currently designated routing  
5 facility has failed, and  
6 iv) accepting, from the external router, an  
7 indication that the formerly current standby  
8 routing facility has been elected as ~~the~~ a new  
9 designated routing facility, and  
10 wherein the routing facility is further adapted to use  
11 the stored path information from the formerly current  
12 standby routing facility if it is newly elected as the new  
13 designated routing facility.

1 Claim 28 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 20.

1 Claim 29 (currently amended): The router of claim 8  
2 further comprising:  
3 c) means for electing the standby routing facility as  
4 a new ~~the~~ designated routing facility if a failure of  
5 the designated routing facility is determined.

1 Claim 30 (currently amended): The router of claim 16  
2 further comprising:  
3 d) means for electing the current standby routing  
4 facility as ~~the~~ a new designated routing facility if  
5 a failure of the currently designated routing  
6 facility is determined; and  
7 e) means for informing the external node of the  
8 identify of the newly elected new designated routing  
9 facility.